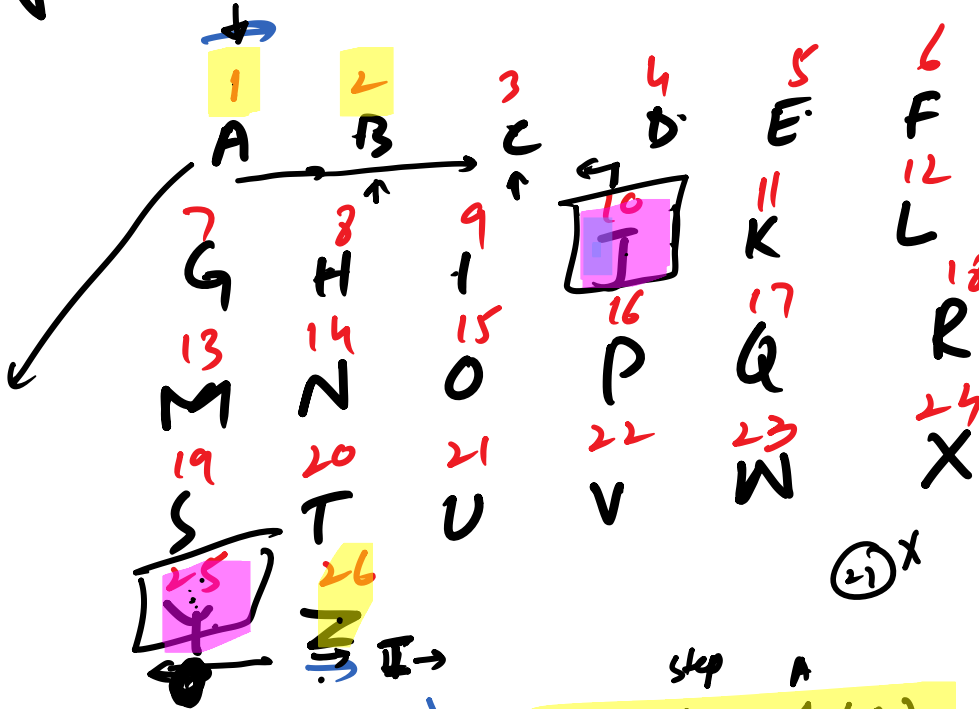


Coding / Decoding:



1+1=2
1+2=3

- ① step forward (→):
- ② step backward (←):

step A
 $26 + 1 = 1 (A)$

step Z
 $1 - 1 = 26 (Z)$ ✓

$10 - 25 = 1$
 $11 - 26 = 11$ ✓



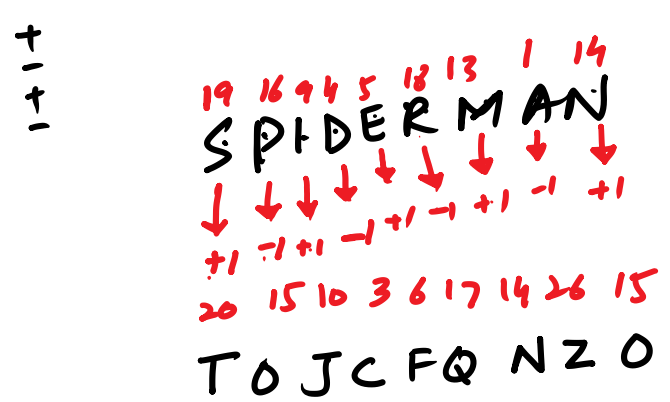
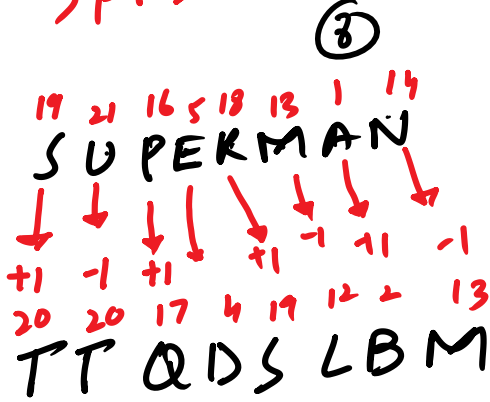
eg ①

COMPUTER = RFUVQN PL
MEDICINE = ?

✓ ②

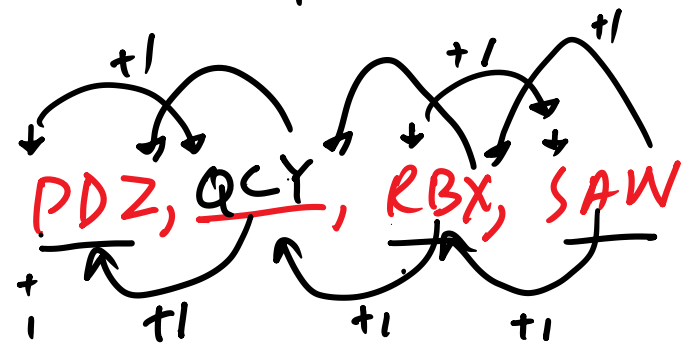
SUPERMAN = TTQDSLBM
SPIDERMAN = ?

Sol:

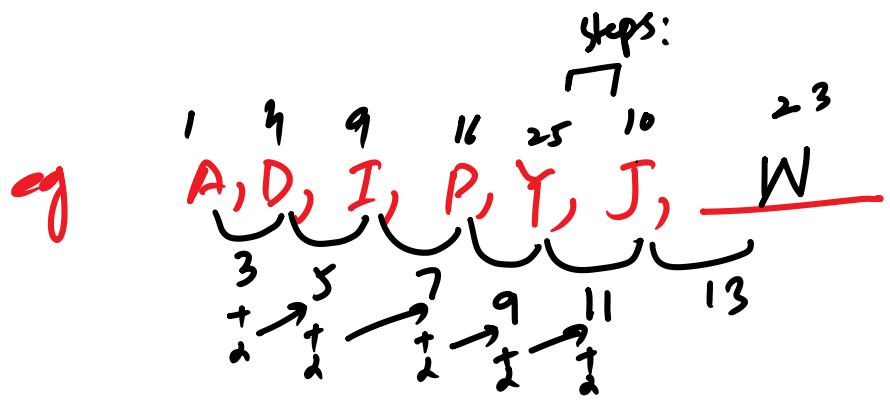


Original = **C O M P U T E R**
 code = **R F U V Q N P C**

M E D I C I N E → Dutch
 ← + placed
E O J D J E F M



10 ⇒ E



$$\boxed{10 - 25} = 11$$

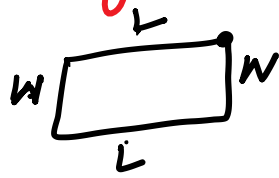
Geometry



eg ① The area of the following trapezium is ?

Geometry (problems)

eg 1) The area of the is?



Sol: Rectangle = $L \times W$
 perimeter = $L + L + W + W = 2L + 2W = 2(L + W)$

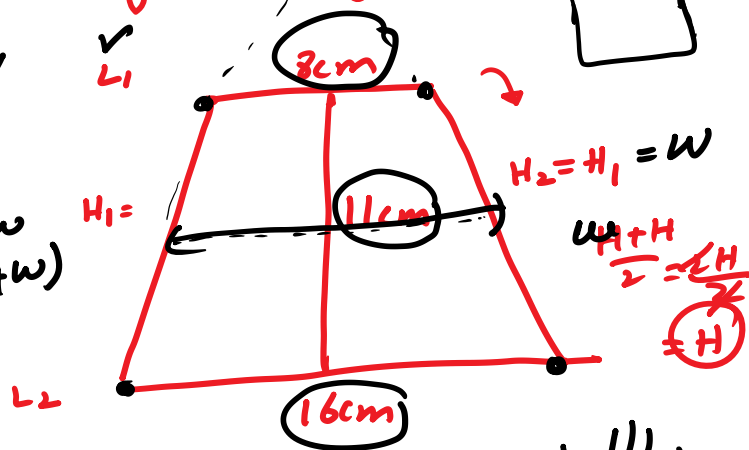
Trapezium area:

Area = Avg(H) \times L (Avg)

= $H \times \left(\frac{L_1 + L_2}{2} \right) = 11 \text{ cm} \times \left(\frac{3 + 16}{2} \right) \text{ cm}$

= $11 \text{ cm} \times 12 \text{ cm} = 132 \text{ cm}^2$
 Ans?

following Trapezium



$L_1 // L_2$
 $L_1 \neq L_2$
 $H_1 = H_2$

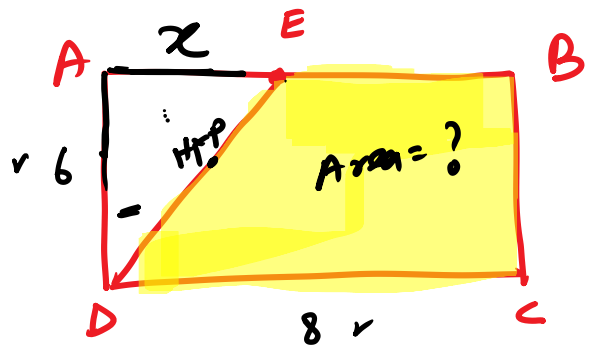
eg 2) In the figure below, given that $AD = 6$, $CD = 8$, $AE = x$, what is the area of the shaded region.

Sol: Area of rectangle

Area(R) = $L \times W$
 = $8 \times 6 = 48$

Area(T) = $\frac{1}{2} (\text{Base} \times \text{Height})$

= $\frac{1}{2} (6 \times x) = 3x$



$$\begin{aligned} \text{Shaded region Area} &= \text{Area(Rect)} - \text{Area(Tri)} \\ &= 48 - 3x \quad x = \text{variable} \\ &= \underline{\underline{\text{Ans?}}} \end{aligned}$$

eg③ The cost of carpeting a room, 5m wide with Carpet at Rs. $3.50/m^2$, is Rs. 105. The length of the room is ?

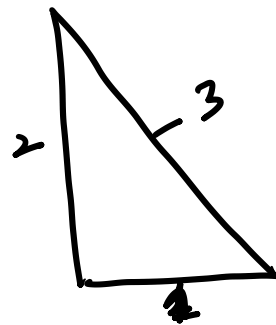
Sol:- price \rightarrow Area

$$\text{Area of carpet} = \frac{\text{Total price}}{\text{price}/m^2} = \frac{105}{3.50/m^2} = 30 m^2$$

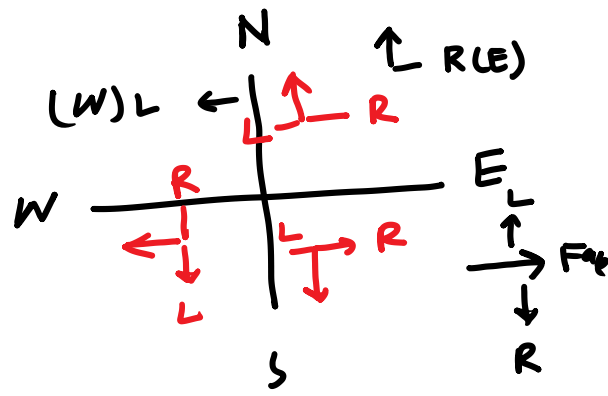
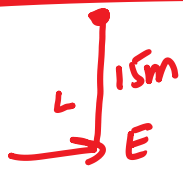
$$\checkmark \quad \text{Area} = L \times W \quad \checkmark$$

$$L = \frac{\text{Area}}{W} = \frac{30m^2}{5m} = \underline{\underline{6m}} \quad \text{Ans?}$$

\Rightarrow Scalene $\left\{ \begin{array}{l} \text{sides} \\ \text{angle} \end{array} \right.$

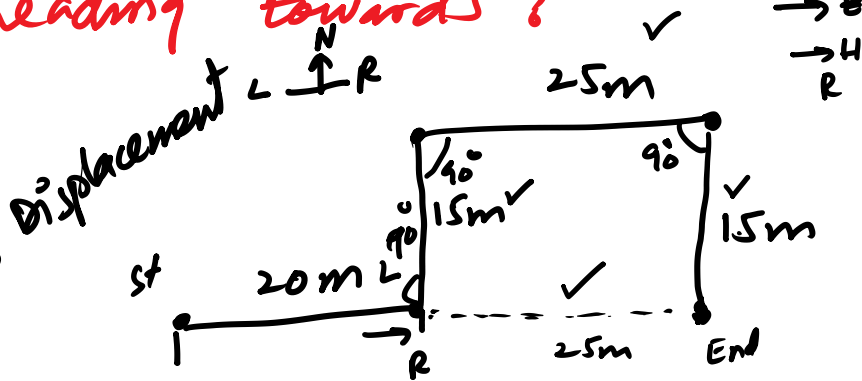
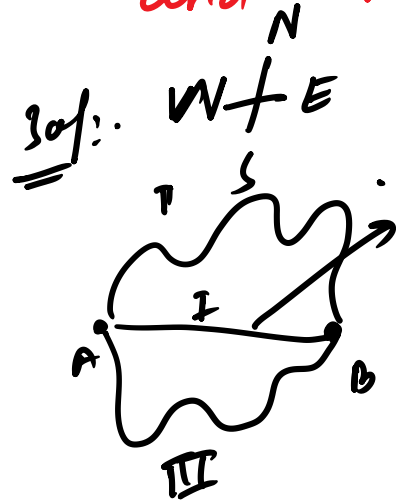


Direction sensing:



To be _____ ?

eg:- If Rahim moves 20m in East direction and then turns to his left and then moves 15m and then he turns to his right and moves 25m. After this he turns to his right and moves 15m. Now how much far is he from his starting point and heading towards ?



$$20m + 25m = 45m - \text{South}$$

↓
South